GEOGRAPHIC INTELLIGENCE REPORT

GEOGRAPHIC BRIEFS OF THE ECONOMIC REGIONS OF THE USSR



CIA/RR-GR-70 September 1955

CENTRAL INTELLIGENCE AGENCY

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Office of Research and Reports



Approved For Release 2002/07/12 : CIA-RDP79-01009A000900090014-9 $_{\rm S-E-C-R-E-T}^{\rm C-R-E-T}$

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GEOGRAPHIC BRIEFS OF THE ECONOMIC REGIONS OF THE USSR

Background of Economic Regionalization

The basis for the present-day regional structure of the Soviet economy was inherited from prerevolutionary Russia. The early pattern was characterized by a concentration of economic development in the area west of the Volga and the Caspian Sea. This concentration was strongly influenced by population density, the distribution of more advanced ethnic groups, ready availability of cultivable land, and the alignment of historic trade routes. The nuclei for trade, industry, and an expanding rail network were found here. When the economic regions were first conceived, mining and heavy manufacturing played a minor role in the total of productive activity.

In 1928 the USSR launched its first program of intensified industrialization. The geographical aspects of the First Five Year Plan (1928-32), which was based on 21 economic regions, emphasized the cardinal importance of regional specialization and nationwide economic interchange. The Plan was dominated by the attempt to maximize the output of mining and allied heavy industries. By the middle 1930's the economic and strategic inadequacies of the pattern laid out by the First Five Year Plan and continued in the Second Five Year Plan (1933-37) had become obvious. The Third Five Year Plan (1938-42) reflected an altered theory of regional development. It aimed at maximum regional self-sufficiency rather than interdependence and at homogeneous development rather than specialization. To attain this goal, new and larger economic regions were defined -- 15 regions in all -- that would ultimately be capable of both agricultural and industrial development. These regions have, with minor alterations, survived to the present time.

The boundaries of the regions, especially those in the western part of the USSR, follow essentially ethnic-territorial-administrative lines, but the physical environments are highly diverse. The fertile plains of the Ukraine in Region III contrast sharply with the boggy soils of Belorussia in Region ITb, the swamps of the West Siberian Lowland in Region IX, and the dry steppes of Kazakhstan in Region Xa. A substantial proportion of the total area of the country lies within the temperate zone, but the regions in the west are subject to varying degrees of marine influence, while those in the east have markedly continental climates. More extreme are the contrasts between the subtropical climate in parts of Region V and the arctic climate in the northern parts of Regions IX, XI, and XII. Even within a single region there is wide environmental diversity. This phenomenon is most

striking in the regions east of the Urals, whose areas stretch from the southern borders of the USSR to the Arctic Ocean.

Although in theory the Gosplan divides the USSR into regions founded on basic economic principles, these economic regions are neither homogeneous nor functional and many developmental efforts have disregarded regional boundaries. Glavsevmorput', which for many years had almost complete jurisdiction over the Northern Sea Route and economic development in the North, administered a territory north of latitude 62° extending from the Urals to the Pacific coast. This area, which included parts of Economic Regions Ib, IX, XI, and XII, actually formed a functional region. At present, the development of the North is shared by other organizations as well as Glavsevmorput', but the major effort in the construction of railroads, lines of communication, and industrial centers still maintains an east-west orientation.

The most recent large-scale effort at economic development is embodied in the "New Lands Program." Under this program, 30 million hectares of virgin and idle agricultural land will be brought into cultivation. The bulk of this land, which will be sown to grain, will form a continuous area reaching into five economic regions (VI, VIII, IX, Xa, and XI).

As development continues, changes may be expected in both the size and character of the regions, with corresponding alterations in the boundaries of the administrative units comprising them. Whether these changes will be sufficiently drastic to result in the formation of functional or homogeneous economic regions is currently debatable.

The following briefs give a concise description of the geographicresource base of each of the 15 economic regions making up the presentday regional structure of the USSR.

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I. Economic Region Ia.

Economic Region Ia, Northwest, is the second most important industrial region in the USSR. It covers a total area of 188,455 square miles and includes the Leningrad, Murmansk, Pskov, and Novgorod Oblasts of the RSFSR and all of the Karelo-Finnish SSR.

Most of the activity of the region is focused on the city of Leningrad, which ranks second to Moscow as the major industrial, cultural, and scientific center of the country. Concentrated within the city and its suburbs is the manufacture of precision instruments, tractors, turbines, textile machinery, business machines, photo equipment, telephones and radios, and factory and plant equipment for other industrial areas. Leningrad plays the leading role in the chemical industry of the region, primarily in the manufacture of synthetic rubber from potato alcohol and the processing of phosphate fertilizers from Khibiny apatites.

The port of Leningrad, located on the banks and islands of the Neva River at its entrance to the Gulf of Finland, is the best equipped port and has the largest shipbuilding yards in the USSR. Within Leningrad is the naval base at Kronshtadt.

Leningrad ranks equally with Moscow as a railroad center and is the terminus of several major inland water routes. The Kirov Railroad and the Baltic-White Sea Canal have created particularly strong ties between Leningrad and Murmansk and the Kola Peninsula. During the winter the ice-free port of Murmansk takes over the shipping of the ice-bound port of Leningrad. Murmansk Oblast (Kola Peninsula) provides the industries of Leningrad with mineral raw materials, especially apatite, nepheline, and nickel. Leningrad in return provides the base of all developments in the Murmansk Oblast and continues to supply it with a variety of manufactured goods, equipment, and skilled labor.

The increase in industrial power production has given rise to some centers outside of Leningrad. Volkhov with its abundant waterpower is a center of aluminum production. Boksitogorsk, near Tikhvin,

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processes bauxite, which is mined in the vicinity. Large deposits of lignite are located near Borovichi, where refractory materials, lumber products, paper, and linen are produced.

In the far northern oblast of Murmansk, unusual mineral wealth forms the basis of recent industrial activity. A number of minerals, including apatite, nepheline, nickel, and copper, are found here in quantity, as well as smaller amounts of such rare metals as titanium, vanadium, zirconium, and molybdenum. Kirovsk, which is on a branch line of the Kirov Railroad, is a relatively new town situated in a recently developed apatite-mining area. Nikel' is also a new town that has grown up in the vicinity of rich nickel deposits.

In addition to its port functions, the city of Murmansk serves as a center for the lucrative fishing industry of Barents Sea along the northern coast of the Kola Peninsula. Fish processing and shipbuilding are two of the most important activities of the city. A Soviet naval base is located at Severomorsk adjoining Murmansk on the east.

In the Karelo-Finnish part of Region Ia, lumbering and allied activities are the main industries. Although lumbering and saw-milling centers are distributed throughout the Republic, the heaviest concentration is found in the vicinity of the Kirov Railroad and the Baltic-White Sea Canal. The chief sawmilling centers are Petrozavodsk; Solomennoye, a northern suburb of Petrozavodsk; Nadvoitsy; Idel'; and Letnerechenskiy; and the lumber ports of Belomorsk and Kem'. These towns make furniture, prefabricated houses, and plywood. Paper is milled at Segezha and Kondopoga.

Although industry in Region Ia is of much greater importance than agriculture, a significant part of the industry is concentrated in Leningrad itself, and much of the remaining territory retains a predominantly rural character, with agriculture and forestry the main activities. With the city of Leningrad as its major market, the agriculture of the entire surrounding area is oriented toward production for urban needs -- milk, meat, fruits, and vegetables. This relationship between urban center and rural hinterland is repeated throughout the region on a much smaller scale.

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Most of the cultivated land is in rye, barley, oats, and fodder grasses. Very little wheat is grown in any part of the region, and most of the bread grains are imported. In the Novgorod and Pskov Oblasts, with their clay soils, damp climate, and surplus of rural labor (especially women), flax is one of the chief crops. Agriculture is of least importance in the northern and the forested parts of Region Ia, but traces of dairying and truck farming reach even beyond the Arctic Circle, and reindeer breeding reaches sizable proportions in parts of the Kola Peninsula. Agriculture is totally eclipsed by forestry in many parts of the region, such as the area east of Lake Ladoga, where there are many forests and few roads and the best avenues of movement are the rivers.

The population of Region Ia is about 8.1 million, with a characteristically high urban concentration and a very low rural density. The major portion of the population lives in the south -in Leningrad and in Novgorod and Pskov Oblasts. Within this area the average density of the rural population is 50 persons per square mile, but it reaches about 75 in the southwest and 25 in the northeast. The rural population lives in small villages of 15 to 10 or less households. Urban dwellers constitute over 60 percent of the population of the southern area, and about 50 percent of the population in Region Ia live in the city of Leningrad. In the Karelo-Finnish part of the region the average rural population density is 9 persons per square mile but reaches 25 in the southern sections, where agriculture is more prevalent. Villages number from 5 to 10 households. Nearly a third of the population of this part of the region is urban, about 50 percent living in Petrozavodsk, the capital of the Karelo-Finnish SSR. Urban concentration reaches its maximum on the Kola Peninsula, where 80 percent of the population is urban. Rural density reaches a minimum of less than 5 persons per square mile.

Almost 80 percent of the population of Region Ia is Great Russian; the remainder is made up of Karelians, Finns, Estonians, Lapps, and a few very small groups of Finnish origin that inhabit the southern lakes area.

The terrain of Region Ia is mostly gently undulating or flat, but in the Kola Peninsula and Karelia of the extreme northwest, much of the land is furrowed and hilly. Granite and gneiss bedrock protrude above the ground in many places, and fields are frequently strewn with boulders. The highest elevations in the region are

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found on the Kola Peninsula, where the plateau-like Khibiny Mountains rise more than 4,000 feet above the surrounding plains. A mass of lakes and rivers covers a major part of the land. Lakes Ladoga, Onega, Vygozero, Il'men', and Chudskoye, together with the many rivers (Volkhov, Svir', Msta) of the region, form the densest lake-river net in the USSR. The region lies almost completely in the zone of taiga vegetation, and forests cover many parts of the area. Swampy open forests of spruce, with admixtures of pine and birch, are found on the Kola Peninsula, whereas the Karelo-Finnish area has extensive forests of pure pine. In the southern parts of the region, large areas have been cleared for agriculture, but many predominantly evergreen stands remain.

The climate of Region Ia is continental, with long, severe winters and short, cool summers. Because of the moderating influence of the White Sea in the north and the Baltic Sea in the south, the climate is less severe than that at similar latitudes farther east. Of great significance to shipping is the influence of the Gulf Stream, which prevents the Barents Sea along the coast of the Kola Peninsula from freezing in winter. The southern half of the peninsula is actually cooler in winter than the northern half. Periods of below-zero temperatures are common throughout the region during the winter. Spells of above-freezing temperatures, however, may continue for several days, even in midwinter. The July average is 60°F, and the highest temperatures seldom exceed 70°F, even on the hottest days of summer. Precipitation averages 15 to 20 inches a year and is generally heavier in the south than in the north. Although the maximum is in summer, a considerable amount of the total precipitation falls as snow in winter. Both spring and fall are short transitional seasons.

II. Economic Region Ib.

Economic Region Ib, North, covering 442,548 square miles, is for the most part a frontier area whose economy is geared to the exploitation of natural resources. The abundant resources include forests, coal, petroleum, furs, and fish. Agriculture, chiefly dairying, and some manufacturing are also of importance. Stretching from the Central Industrial Region to beyond the Arctic Circle and extending west-east from the Karelo-Finnish SSR to the Urals, the region also includes the island groups of Novaya Zemlya and Franz Josef Land. This vast area includes only three administrative units: Vologda

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Oblast, noted for its dairy industry; Arkhangel'sk Oblast, best known for the flourishing sawmill industry and Arctic port activities of its administrative center; and the Komi ASSR, notorious for the forced labor camps that provide labor for its coal mines and oilfields.

Forests cover three-fifths of the region, extending to the Arctic Circle, and contain the best lumber trees in the European USSR. Logs are floated down the Onega, Northern Dvina, and Mezen' to the mills at ports along the rivers. From there the lumber is exported abroad and to the central and southern regions of the USSR. Industry in Region Ib is based on the forest resources. Arkhangel'sk is the largest sawmilling center in the country and the hub of the lumbering industry and allied activities. Paper and pulp, plywood, prefabricated houses, and distilled products including tar, resin, and methyl alcohol are produced in the city. Arkhangel'sk is a supply port for the Northern Sea Route and has shipyards, repair docks, and cordage mills. Nearby Molotovsk has in the last 20 years developed into an important sawmilling center. Kotlas, at the confluence of the Northern Dvina and Vychegda Rivers, also has sawmills and wood distilleries.

Other manufacturing in Region Ib, though of minor importance, includes the production of linen and of dairy and meat products. An aluminum industry is being developed at Cherepovets in Vologda Oblast; large bauxite deposits were discovered during World War II, and a processing plant has been under construction since 1949.

Coal deposits are concentrated at Vorkuta in the eastern Pechora Basin. The mines produce excellent coking and heating coal. The Leningrad industrial complex has been the principal consumer of Vorkuta coal since the completion of the North Pechora Railroad in 1942. The Pechora Basin also contains petroleum deposits near Ukhta. The oil is refined locally, and the products are sent to Leningrad.

Furs and fish are obtained in the Arctic sector of the region. Seals, the major source of fur, are hunted along the mainland shore and the coast of Novaya Zemlya. Reindeer are herded in the Nenetskiy National Okrug, Novaya Zemlya, and Kolguyev and Vaygach Islands. The chief types of fish -- cod, herring, haddock, and flounder -- are caught in the White Sea and offshore waters east to Kolguyev Island.

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Agriculture in the region is severely restricted by unfavorable climatic and soil conditions. Only in recent years, as a result of modern farming practices, has it expanded to the north. Flax is the most important crop and grows especially well in the southwest. In scattered areas, rye, barley, oats, and spring wheat are grown, and in recent years grain production has been pushed into the far north. Livestock graze in the rich meadows of the river flood valleys and provide dairy products and meat.

The transportation net is sparse and consists of the rivers and a few strategic railroad lines. The principal rail lines connect Arkhangel'sk and Vorkuta with Moscow and Leningrad to the south and southwest. Rivers are extensively used for transportation and, in combination with the Mariinsk and Northern Dvina Canals, form a good network of waterways. By these routes, Arkhangel'sk is connected with Leningrad and Moscow.

The population of Region Ib is the sparsest in all European USSR, averaging only 8 persons per square mile. The lowest density is in the Pechora Basin, but at Vorkuta there is an island of high density. Novaya Zemlya is devoid of population except at isolated points on the western shore. Great Russians are found only in cities and other highly developed areas, and national minorities in the region are organized into political units -- the Komi into an autonomous republic and the Nentsy into a national okrug.

Region Ib consists of the broad Dvina-Pechora Lowland and the northern Ural Mountains. The lowland is a nearly featureless, glaciated plain that slopes northward from the Uval Range to the Arctic Sea. The lowland is divided near its center by the low, glacially eroded Timan Range. The Northern Dvina River and its tributaries drain the western part of the lowland, and the lowland east of the Timan Range is drained by the Pechora River system.

The vegetation of the Dvina-Pechora Lowland consists of coniferous forests that extend north to the vicinity of the Arctic Circle; farther north is the tundra which continues northward to the Sea. Spruce and pine, the principal trees, grow in boggy soils covered with lichens. Many peat bogs are scattered throughout the forest. Beyond the Arctic Circle a bushy lichen tundra is underlaid by permafrost.

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The northern Urals, which form the eastern border of Region Ib, comprise the highest and most rugged and inaccessible segment within the 1,200-mile length of the Urals. Snow remains in sheltered spots all summer, and small glaciers have recently been found in several valleys.

The climate of Region Ib is rigorous, especially in the northeastern part. January temperatures average a few degrees below O°F. The winters are long, the Pechora Basin having an average of 200 days per year with temperatures below freezing. In the southern part of the region the winters are equally severe, but the short, warm summers provide some relief from the cold. Precipitation varies from 12 inches along the coast to 20 inches inland. The Northern Urals stand out as an island of heavier precipitation and average 30 inches per year. During December and January the area north of the Arctic Circle experiences continuous darkness, except for a faint twilight condition at noon. This is also the season for brilliant aurora borealis displays. During June and July, these northern regions have continuous daylight.

III. Economic Region IIa.

Economic Region IIa, Baltic, is significant chiefly because it provides the USSR with year-round access to the open sea by way of the Baltic ports. The area has long served Moscow and central Russia as a commercial outlet. In area it is the smallest economic region of the USSR, comprising 73,591 square miles. The region includes the Estonian, Latvian, and Lithuanian SSR's, which were formerly independent states, and the Kaliningrad Oblast of the RSFSR, which was formerly the northern part of East Prussia. Since its incorporation into the USSR, the economy of the region has never been stabilized, largely as a result of war devastation, forced collectivization, and population migration. The goals of the Soviet Five Year Plans for the region were designed to make it as nearly self-sufficient as possible and, in particular, to expand those industries that are important to the USSR as a whole.

The mineral resources of the region are not rich. The oil shale of Estonia, however, is a source of fuel oil, gasoline, and other products, which are extracted from the shale at a large industrial complex centered at Kokhtla-Yarve. The products are of special importance because they are easily accessible to Leningrad and the

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Baltic ports. Plans have been made to construct pipelines to Leningrad and Tallin. Peat cutting and phosphate mining are the only other extractive industries. Both are chiefly of regional importance.

Except for shale-oil extraction, industrial activities are concentrated chiefly in the ports. Food processing, textile weaving, and paper manufacturing are common to the four units comprising the region, as are also fishing, lumbering, and the production of various construction materials. Efforts are being made to expand the machine-manufacturing and shipbuilding industries of the Baltic region, and especially the steel industry of Latvia. Latvia was relatively well developed industrially prior to Soviet occupation and is still the most industrialized part of the region. A fundamental prerequisite to industrial expansion is an increase in power production. Much of the power now produced is thermal electric, but hydroelectric developments, including the huge Narva dam, are under construction.

Although Soviet planning calls for increasing industrialization, the region was about 70 percent agricultural before World War II, and agriculture remains of paramount importance. Dairy farming and the production of grains -- especially rye, oats, and barley -- are the most important types of agriculture, but potatoes, hogs, and poultry are also raised. Flax is the chief industrial crop. Butter, eggs, and bacon are major export items, and the processing of agricultural products is relatively important. Agriculture has not been particularly prosperous in the Baltic area since sovietization, because of drastic livestock losses, scarcity of farm labor, and the slowness and reluctance of the people to adopt collective farming. Forests still cover about one-third of the region and constitute a significant natural resource. The combination of terrain, soils, and climate, however, favors agriculture.

The population of Region IIa is estimated at 7.2 million. The major national groups are the Estonian, Latvian, and Lithuanian, each predominating in its respective republic. In Latvia the Latgales are an important minority group. Great Russians are most numerous in the cities. In Kaliningrad Oblast, Great Russians form the majority, the original German population having been drastically reduced. The chief cities in the region are Riga (with a population of over half a million) followed by the ports of Tallin and Kaliningrad and the inland cities of Vil'nyus and Kaunas. The four latter range in size from 180,000 to 250,000 in population.

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Region IIa is generally well served by transport facilities. A dense rail net connects the ports and the interior, and major lines continue on to central European USSR. Both the roads and the road net are generally better than in the USSR as a whole.

The region lies within the East European plain and has typically glaciated terrain, with extensive swamp areas and many lakes. Although relief in general is low, the landscape is varied and a few elevations exceed 1,000 feet. Low hills are common, and the upland areas of Latvia and Lithuania have been so deeply dissected that they give the impression of miniature mountain regions.

The coastline of Region IIa is of two general types. The north coast of Estonia, along the Gulf of Finland, is rugged and lined with cliffs and includes a number of good natural harbors. By contrast, the Baltic Coast in the west is characterized by low beaches backed by dunes and fringed in places by lagoons and sandbars. Harbors here are located at river mouths or are artifically maintained.

The climate of Region IIa is milder than that of most of the USSR, being transitional between the maritime climate of Western Europe and the continental climate of European USSR. Winters are moderate and summers are relatively cool, and the annual range of temperature is low. Precipitation averages 20 to 25 inches annually, and there is a high incidence of cloudiness.

IV. Economic Region IIb.

Economic Region II, Belorussia, situated along the western border of the USSR, is of greatest importance as the main transit corridor between Central European Russia and Western Europe. It is one of the least industrialized of the western economic regions of the USSR. Although the region is primarily agricultural, farming is backward and crop yields are low. In area, Region IIb and the Belorussian SSR are coextensive, covering about 80,154 square miles, or a little less than the state of Kansas. On the west the region is bordered by Poland, on the north by the Soviet Republics of Latvia and Lithuania, and on the south by the Ukrainian SSR.

Because of its role as a transit corridor between the east and the west, the region has a more highly developed transportation system than its internal economy would justify. Transportation relies chiefly on the railroads, and traffic is heaviest along the east-west lines.

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Of these the Moscow-Minsk-Brest-Warsaw railroad is by far the most important. This double-track line, which is the shortest route between Moscow and Berlin, carries heavy traffic in both directions. The north-south railroads serve chiefly as connecting links between the east-west lines. Brest, with a number of railroad reloading stations, is the main interchange point between the broad-gage Soviet railroads and the standard-gage lines of Poland,

The road network of the region, by contrast, is sparse and of poor quality. Its primary function is to feed the railroads. Except for a few main gravel- or clinker-surfaced highways, dirt roads of seasonal trafficability predominate. The best and most heavily traveled road leads east-northeast from Minsk to Smolensk and thence to Moscow.

The most important inland waterway artery is the Dnepr River system. Together with the Dnepr-Bug Canal, it provides a connection between the Black and Baltic Seas. The Bug and Pripyat' Rivers are also important links in Baltic-to-Black Sea navigation. The Oginskiy and Serguchskiy Canals provide additional waterway connections. The former connects the Neman and Dnepr Rivers, and the latter links the Berezina with the Dvina River system.

Farming in Region IIb is for the most part organized on a collective basis, with relatively large fields of cultivated crops and consolidated pastures and meadowlands. The cool, damp climate, combined with sandy and clayey soils, favors the production of winter rye, potatoes, oats, summer barley, and fodder crops such as clover. Flax growing is widely distributed throughout all the farming areas, and buckwheat is grown as a local food staple. Hog raising and dairy farming are also widespread. Near urban centers, orchard and garden crops, as well as poultry raising, are of local importance.

The relatively unimportant industries of the region are based on its agriculture, forests, and very limited mineral resources. Among the main industries are flax processing, linen weaving, tanning, production of hog bristles, food processing, plywood and match manufacture, and the production of peat briquettes.

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Region IIb has a population of 9.3 million, with an average density of 116 per square mile. Belorussians form the largest ethnic group. Although Belorussians are seldom dominant in cities or towns, they make up 90 percent of the rural population. Poles, who were a strong minority in the area until 1945, were largely repatriated in the course of the population exchange following the establishment of the present Soviet-Polish boundary, but a few Poles still remain. Great Russians are comparatively few in number. They are concentrated mainly in the cities and towns, where they hold most of the administrative posts. The region has a very small Ukrainian population along the southern margin, and a few isolated colonies of Tatars and Karaims. Small numbers of Lithuanians also live along the northern fringe of Belorussia. Before World War II, Jews formed a substantial urban minority, but they were largely exterminated as the result of mass executions.

A number of large cities are distributed throughout Region IIb and include Minsk, Pinsk, Brest, Polotsk, Vitebsk, Mogilev, and Gomel'. The rural population is densest near the cities and sparsest in remote areas such as the Pripyat' Marshes. Villages are the characteristic type of rural settlement. Individual farms are rare and are limited chiefly to the formerly Polish section of the northern plain. The eastern part of the Republic, which has been under continuous Soviet rule longest, is the most highly collectivized. Villages are fairly uniformly distributed and characteristically average about 300 inhabitants. Most commonly, village houses are built in a row along one or both sides of a dirt road, in some cases for a distance of a mile or more. The houses are generally built of rough-hewn logs and have thatched roofs.

Belorussia forms part of the East European Plain and is separated by the Lithuanian-Belorussian Upland into a small northern and a larger southern lowland. The northern plain around Polotsk is nearly flat and is dotted with lakes, marshes, and forests. The southern plain, occupying the combined basins of the Pripyat' and Dnepr Rivers, measures about 350 miles from east to west and 150 miles from north to south. The surface is practically level, with an almost imperceptible slope to the east and southeast. Drainage is poor and sluggish, and nearly half of the total surface is covered with swamp forest. With their dense undergrowth, these swamps and forests constitute a considerable barrier, even to movement on foot.

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The Lithuanian-Belorussian Upland forms the watershed between rivers draining to the Baltic and Black Seas. This ridge is essentially gently rolling land interrupted occasionally by sandy transverse passes. Local differences in relief average 150 to 200 feet and rarely exceed 300 feet. A maximum elevation of 1,150 feet is found northwest of Minsk.

The climate of Region IIb is relatively moderate and humid, representing a transition between the maritime climate of northwestern Europe and the strongly continental climate of the central European USSR. Summers are fairly warm, with a July mean temperature of 65°F. Winters are long and severe, with January temperatures averaging about 18° to 23°F. Precipitation is distributed evenly throughout the year and averages 20 to 24 inches annually. The prevailing winds are from the south and west.

V. Economic Region III.

Economic Region III, South (Ukraine and Moldavia), is one of the most important regions in the USSR both agriculturally and industrially. Its 246,000 square miles include the Ukrainian SSR and the Moldavian SSR, and its vast plains extend about 750 miles from the wooded slopes of the Carpathians in the west to the Don River in the east; to the South are the Black and Azov Seas. This is the famous "black earth region," whose rich farmlands have long been "the breadbasket of Russia." Twenty-five millton acres are devoted to wheat. Among the other important crops are rye, barley, oats, and sugar beets, and large numbers of livestock are produced. The heavy industries of Region III are among the most important in the USSR. Coal in the Donets Basin and iron ore from Krivoy Rog have made possible the development of a large ferrous metallurgical industry. About half of the pig iron and a third of the steel of the USSR are produced here. The output of machinery accounts for about one-fifth of the nation's total, that of chemicals for about one-third. Since the completion of the Dnepr River Dam, a large aluminum plant has been established at Zaporozh'ye.

Region III is the most densely populated area of the USSR. Its 47 million inhabitants represent over one-fifth of the total population. In the Ukrainian SSR, composition of the population is relatively homogeneous, with Ukrainians constituting about 80 percent of the total. Important minorities are Great Russians in the Donets Basin, the Crimea, and the north; Belorussians in the north-

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northwest; and Poles in the West. In the Moldavian SSR, Moldavians constitute 65 percent of the total; others include Ukrainians, Great Russians, and Bulgarians.

Rural villages, generally collective-farm centers, are the most characteristic features of the rural settlement pattern. They stretch along the river valleys or along dry ravines, where dams have created artificial ponds that provide the water supply. The white-washed sun-dried brick houses are usually evenly spaced along wide dirt roads. Behind the houses are small garden patches.

About one-third of the population lives in large urban centers. Twenty cities have over 100,000 inhabitants, and more than forty have over 50,000. Those with over a half-million persons each are Khar'kov, Kiev, Odessa, Dnepropetrovsk, and Stalino. The large centers lie mainly in the Donets Basin, along the Dnepr River and the Black and Azov Seas, and in the western Ukraine.

The highly developed economy of the region has required a relatively well-developed transportation network. Most of the traffic load is carried by the railroads. The region has the densest rail network of the USSR, the chief centers being at L'vov, Kiev, and Khar'kov. Three main lines originate in the industrialized Donets Basin and connect it with the Moscow industrial region. The road network, which is less adequate, is densest in the west. In general, the net consists of roads radiating from important urban centers. Only a few major roads pass through the Ukraine, the most important being the Moscow-Khar'kov-Simferopol' and the Moscow-Kiev-Odessa highways. Most of the roads are unimproved, muddy in spring and fall, and dusty in summer. Along the seacoast and on the Dnepr River, water transport has attained considerable importance.

The dominant relief features of Region III are plains or low, rolling plateaus, broken by an irregular pattern of stream and river valleys. Interrupting the expansive plain are a few slightly higher elevations, such as the Donets Ridge in the southeast and the Volyn-Podolian Plateau in the west. Seacoasts are generally low, but at a short distance back from the beach there are likely to be steep, loamy cliffs of various heights. Only in the Carpathian area and the Crimea is there any mountainous terrain. The Carpathians are steep and forested, with slopes cut by deep transverse valleys. The partially forested Crimean Mountains skirt the southern shore of the peninsula and drop off abruptly to the sea.

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The climate of Region III is characterized by cold winters and hot summers. The major exception is the southern coast of the Crimea, where summers are hot and dry and winters mild and rainy. The period of winter freezing varies in length from 2 months in the south to 3 or $3\frac{1}{2}$ months in the north. The snow cover is usually light. Winter is followed by the notorious spring thaw, accompanied by deep mud that brings vehicular movement almost to a standstill along the dirt roads for 3 or 4 weeks. During the hot summers cloudbursts are common. A second period of mud conditions occurs in the fall before the onset of winter, but it is shorter and somewhat less severe than in the spring.

VI. Economic Region IV.

Economic Region IV, Southeast (Lower Don and North Caucasus), ranks as one of the leading petroleum producers of the USSR, as well as an important agricultural area. Bounded by the Sea of Azov and the Black Sea on the west and by the Caspian Sea on the east, the region stretches northward from the Caucasus Mountains across the lower Don River. The total area is about 138,000 square miles.* The landscape ranges from fertile grain fields in the Kuban and lower Don Basins to dry pastures in the Caspian plains. Along the southern fringe of the region are oilfields and forested mountains.

The petroleum fields and polymetallic-ore deposits of the foothills and northern slopes of the Great Caucasus Range, the rich agricultural steppe lands to the north, and the large coal mines centered at Shakhty in the eastern part of the Donets Basin support a variety of local industries and provide commodities for export. Rostov on the Don River, with an estimated population of 500,000, is the largest industrial and transportation center of the region. Taganrog, farther west on the Sea of Azov, ranks high as a coaland grain-shipping port. The major petroleum districts are located in the vicinity of Groznyy, Makhachkala, and Maykop. From these fields a series of pipelines carries the petroleum to the principal refineries at Groznyy, Makhachkala, Krasnodar, and Tuapse. Makhachkala on the Caspian and Tuapse on the Black Sea are also important ports. Krasnodar, Armavir, Stavropol', and Rostov are the most important centers for the processing of local agricultural raw materials. Novorossiysk, the largest cement-milling center of

^{*} See Table 7, p. 30, above.

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the USSR, is also a well-equipped Black Sea port. A number of health resorts -- notably Sochi and Matsesta on the Black Sea coast and Mineral'nyye Vody, Pyatigorsk, and Kislovodsk in the foothills of the Caucasus -- are also located within the region.

The population of Region IV numbers approximately 9.9 million, giving it an average density of 72 persons per square mile. Nine cities have estimated populations exceeding 100,000. Most of the population consists of Great Russians and Ukrainians, who are concentrated in industrial centers, along the Kuban River, and in the northern steppes. Nomadic Turkic tribes occupy much of the Caspian Sea littoral and parts of the dry southeastern plains. In the south are indigenous mountain peoples -- Adyge, Karbardinians, Ossetians, and Avars -- who are organized into autonomous units that vary in importance and size.

Two major railroad lines and three military highways form the core of the transport net. The Rostov-Baku line runs along the northern foothills of the Caucasus Range and serves the principal centers of Armavir, Groznyy, and Makhachkala. The second line runs southwestward from Stalingrad through Krasnodar to the Black Sea port of Novorossiysk. The lines intersect at the rail junction of Tikhoretsk. Many single-track lines branch off these two trunk lines and lead to mining and farming areas and to ports of the region. One important branch crosses the western mountains from Armavir to Tuapse and then follows the Black Sea coast southeastward to the Georgian SSR. The three highways, the major routes across the Great Caucasus range, are the Sukhumi Military Road (Cherkessk-Sukhumi), the Ossetian Military Road (Alagir-Kutaisi), and the Georgian Military Road (Dzaudzhikau-Tbilisi). A network of dirt roads serves the rural areas of the region.

The Lower Don Basin consists mainly of low rolling plains, which favor the development of large-scale mechanized farming. The southern part of the region is dominated by the foothills and northern slopes of the Great Caucasus Range, which rises to elevations over 10,000 feet. In the north the basin of the Don River and the Manych-Kumo Depression are the major relief features. Most of this pre-Caucasus plains area is covered with steppe vegetation, which becomes sparser from west to east: The Kuban and Terek are two main rivers of the Great Caucasus Range. The mountain slopes are forest covered.

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The climate of Region IV is primarily continental, but it is alternately subject to the influence of mild, moist air masses from the west and dry air masses from Siberia and Central Asia, which are hot in summer and cold in winter. Although the mountains have pronounced vertical climatic zonation, there is also a marked decrease in annual precipitation from west to east, as well as an increase in severity of both winters and summers. Throughout the region, winters are short and relatively snow free, but easterly winds may be accompanied by prolonged periods of intense cold, and west winds may bring milder, humid weather and cloudy skies. Average monthly temperatures in winter range from $20^{\circ}F$ to $-40^{\circ}F$. Summers are hot everywhere except in the high mountains. The average summer temperatures range from 65°F to 75°F. Most of the precipitation occurs during the summer. The areas of heaviest rainfall are the western and central foothills, the Black Sea coast, and the exposed slopes of the higher mountains. Semidesert conditions prevail along the Caspian coast.

VII. Economic Region V.

Economic Region V, Transcaucasus, commonly called Transcaucasia, is the most important oil-producing region in the USSR. Its 74,093 square miles occupy a peripheral position along the southern boundary of the USSR, with the greater part of the region lying between the main range of the Caucasus Mountains and the Turkish and Iranian borders. To the west is the Black Sea, and to the east the Caspian. From the point of view of terrain and economy, it is the most complex economic region of the USSR.

The economic importance of Transcaucasia is based primarily upon deposits of petroleum and other minerals. The vast quantities of petroleum extracted from the Azerbaydzhan (notably Baku) and eastern Georgian oilfields are shipped to all parts of the USSR by rail, or by water through the ports of Baku and Batumi. Petroleum refineries are located at both ports as well as in Tbilisi. The manganese deposits in the Chiatura area of Georgia are the second largest in the world. Other significant minerals being exploited include copper in Armenia, iron in Azerbaydzhan, and coal in Georgia. The hydroelectric potential, which is roughly equal to that of the entire area of European USSR, is being tapped to provide power for the rapidly increasing needs of manufacturing. Heavy industry is represented in the recently constructed steel mills in Rustavi and

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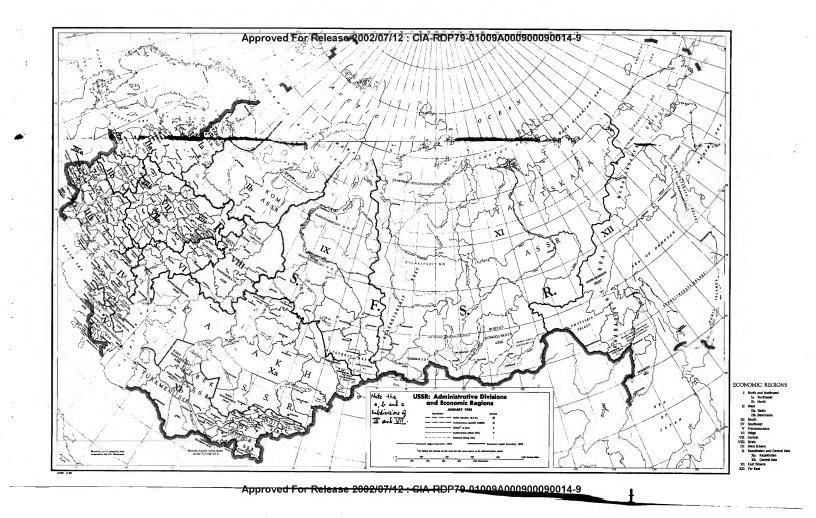
the ferromanganese works in Zestafoni. The manufacture of machinery, textiles, and chemicals and the processing of the local agricultural products are also important.

The agricultural pattern within the region is extremely diverse. In the humid lowland along the Black Sea coast and in the narrow Lenkoran' Lowland in the extreme southeast, emphasis is on the production of subtropical crops such as citrus fruits and tea. In the irrigated lowland of the Kura and Araks Valleys, cotton, fruits, vegetables, and rice are the dominant crops. On the lower slopes of the mountains, wheat, fruit, silk, and tobacco are produced in significant quantities, and the vineyards form the basis for a wine-making and distilling industry. Nomadic herdsmen graze their livestock on the dry eastern lowlands in winter and on the mountain meadows in summer.

The 8.4 million inhabitants of Region V are distributed very unevenly. The highest population density (over 250 persons per square mile) is found in the Rioni Valley near Kutaisi, and high densities prevail in the rest of the Black Sea coastal lowland, in the portions of the Caspian Sea littoral near Baku and Lenkoran', and in the upper Araks Valley near Yerevan. Densities then diminish progressively from the irrigated lowlands to the dry steppes and the lower mountain slopes. The higher mountain slopes are virtually devoid of permanent settlement.

About 30 to 35 percent of the population is classified as urban. Baku, with a population of approximately 800,000, is the largest city in Transcaucasia and the fifth largest in the USSR. Tbilisi is the only other city with a population of over 500,000. Yerevan, the capital of Armenia, has a population of approximately a quarter million. Four other cities -- Batumi, Leninakan, Kutaisi, and Kirovabad -- range from 70,000 to 110,000 in population.

The Transcaucasus region contains an extremely complex patchwork of nationalities. The dominant position of the largest groups, the Georgians, the Armenians, and the Azerbaydzhans, has been recognized by the establishment of three Union Republics. Other sizable groups include the Abkhazes, Adzhars, and Southern Ossetians, who have been organized into lower administrative units. Many smaller groups such as the Kurds, the Talysh, the Svans, and the Pshavs have received no official political-territorial recognition. In the cities the



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number of Great Russians, most of whom are officials and technicians, has been increasing in recent years.

Almost three-fifths of the region is over 2,000 feet in elevation, and one-fifth is above 6,000 feet, but there are also extensive lowlands and plains. Bordering the region on the north are the southern slopes of the Great Caucasus, a rugged range whose sheer cliffs and steep slopes form an immense natural barrier to movement. Crest elevations generally range between 5,000 and 10,000 feet, but in the 150-mile middle stretch the ridge summits are practically all above 10,000 feet and some peaks tower to heights of 15,000 and 18,000 feet. Between the ridges are deep, isolated valleys and gorges.

The Lesser Caucasus consists of a series of ranges that extend in a broad arc south of the Great Caucasus. These two roughly parallel mountain systems are connected near Chiatura by the transverse Surami Range. The Lesser Caucasus Mountains, although somewhat lower and less extensive than the Great Caucasus, are also rugged barriers with steep descents on their eastern, western, and northern flanks. To the south they merge gradually with the elevated Armenian Plateau. Plateau elevations average about 5,000 feet, but northwest of Yërevan is the immense volcanic cone Gora Alagez, which rises to 13,435 feet.

Two strips of lowland are wedged between the Great and the Lesser Caucasus. To the west is the triangular-shaped Rioni Lowland, which covers an area of about 2,100 square miles. Marshes border the coast and the lower course of the Rioni River; farther inland the undulating terrain is higher and drier. The eastern lowland, including the basin of the Kura and lower Araks Rivers, broadens steadily from the narrow plateau-like plains of Gori and Tbilisi in the west to the extensive plain almost 90 miles wide along the Caspian coast.

Region V has a dense network of rivers, most of which originate as swift-flowing mountain streams that flow through deep canyons to the lowlands. Although the rivers seldom freeze over, they are not navigable, because of the torrential character of the upper courses and the shallowness of the lower stretches.

The vegetation pattern in Transcaucasia is extremely complex. The Black Sea coast has a dense cover of alder and willow tangled with sarsaparilla, which forms nearly inaccessible jungles in some areas. By contrast, the eastern part of the region is dominated by semidesert vegetation of fescue, feathergrass, and timothy, with

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sagebrush, saltwort, and thorny bushes. On most of the Armenian Plateau the original cover of rich grass, with oak and scrub juniper at higher elevation, has been supplanted by cultivated crops. Above the grassy meadow of the foothills of the Great and Lesser Caucasus Mountains, vegetation is zoned altitudinally from broad-leaf forests through coniferous forests and alpine meadows to a zone of permanent snow and glaciers devoid of vegetation.

Sheltered from cold northern winds by the main range of the Caucasus, Transcaucasia enjoys a considerably warmer climate than the adjacent regions of the USSR. The Black Sea coast of the region has a humid subtropical climate. Winters are mild, with January temperature averaging from 43°F to 45°F. Summers are hot and humid, with heavy rainfall ranging up to about 100 inches a year in the Batumi area. East of the Surami Range the climate is generally more continental. On the lowland, winters are rather warm, but temperatures are lower than in the west, and frosts occur occasionally. Summers are generally very hot and dry, precipitation being less than 8 inches a year immediately south of Baku. In the humid subtropical Lenkoran' Lowland, precipitation increases again to an annual average of 65 inches. On the higher elevations of the Armenian Plateau in the south, winters are considerably colder, with January temperatures averaging from 14°F to 20°F.

VIII. Economic Region VI.

Economic Region VI, Volga, borders the middle and lower courses of the Volga River, the all-important waterway of the USSR. The 186,679 square miles* of the region include the Tatar ASSR and Ul'yanovsk and Kuybyshev Oblasts along the middle course of the river, and Saratov, Stalingrad, and Astrakhan Oblasts along the lower course.

The Volga unifies the region and is the focus of all of its important economic activities. The river, with its far-reaching tributaries and connecting canals, forms the core of a network of through waterways extending from the Baltic and Arctic Seas on the north to the Caspian and Black Seas on the south. Important eastwest railroads cross the Volga at the large cities along its course and link the economic regions of the west with the Urals and Siberia. The cities are favorably located to receive raw materials both by rail and by water and have become important industrial centers. Pig

^{*} See Table 7, p. 30, above.

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iron is brought in from the Ukraine and the Donets Basin, steel from the Urals, coal from Kuznets Basin, and timber from the north. Supplementing these imports are the local resources of the Volga Region -- agricultural products, fish, petroleum and oil shale, salt, and rock suitable for building stone and the manufacture of cement.

The local and imported raw materials are the basis for the industries of the region. Transport equipment, chemicals, and construction materials are manufactured at Kazan' and Kuybyshev and iron and steel products, including agricultural machinery, at Stalingrad and Saratov. The development of the oilfields of the "Second Baku" in the Tatar ASSR and in Kuybyshev Oblast has recently become a major factor in the regional economy. Kuybyshev, Syzran, and Vol'sk are the oil-refining centers. Vol'sk is important for the manufacture of cement, and Krasnoarmeysk and Astrakhan are important for timber and wood products as well as for shipbuilding. Astrakhan is also famous as a fish-processing center.

The fertile soils of a large part of the Volga Region favor the development of agriculture, but frequent droughts and dry, hot southerly winds often cause crop failures. Chief among the crops are rye, oats, and wheat, and among the industrial crops are sunflowers, hemp, tobacco, and mustard. Vegetables, tree fruits, grapes, and cotton are also produced in the Volga Valley.

The current level of output of the Volga Region, however, is relatively low compared to its potential productive capacity. The economic future of the region lies in the development of its vast water resources to provide power for the expansion of industry and water for irrigating the semiarid plains. At present, two large dams and hydroelectric stations are under construction along the Volga near the cities of Kuybyshev and Stalingrad. The generating capacity of these stations will be among the highest in the world, 2.1 million kilowatts (kw) at Kuybyshev and 1.7 million kw at Stalingrad. Although most of the power from both stations is to be sent by high-tension lines to the Moscow Industrial Region, the amount allocated for local use is expected to increase greatly the productive capacity of the region. In addition the water stored upstream from the Stalingrad Dam will serve to irrigate extensive areas of dry agricultural land east of the river.

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With a total population of approximately 11.1 million people, the Volga Region is a densely populated part of the USSR. The average density is about 60 per square mile, with the greatest concentration in the northern part of the region (about 100) and the lowest in the southern part (about 40). The largest cities are Stalingrad and Kuybyshev, each with a population exceeding 600,000, followed by Kazan' and Saratov, with over 400,000 each, and Astrakhan', with about 300,000.

Great Russians comprise the largest population group within the region and Ukrainians rank second. Together they constitute about 85 percent of the total population. Great Russians, however, are a minority in the Tatar ASSR, where more than 50 percent of the people are Tatars. There are also small numbers of Mari, Mordvinian, Udmurt, and Chuvash peoples in the north and of Kazakh and Turkmen peoples in the south.

The terrain of Region VI is varied. From Kazan' south to Stalingrad the east and west banks of the Volga differ radically in relief. The east bank is low and level along the entire course. In sharp contrast is the high, abrupt west bank along the Volga Uplands to the west. The highest part of the Volga Uplands is the Zhiguli Mountains, located within the Samara bend of the Volga opposite the city of Kuybyshev. These mountains, with elevations over 1,200 feet in some places, are the most striking relief feature of the region. Downstream from Stalingrad the Volga swings to the southeast, and the banks of the river are fairly uniform in appearance. Together they form a lowland, dotted with saline lakes, that slopes gently toward the Caspian Sea.

Other than the Volga, there are few large rivers in the region. The lower course of the Kama River, the largest affluent of the Volga, crosses the eastern part of the Tatar ASSR. West of Stalingrad and the Volga Uplands, a bend of the Don River cuts across a comparatively small part of the region. The Don flows into the Sea of Azov. The waters of the Don and the Volga are interconnected by the recently constructed Volga-Don Canal, which extends from Kalach on the Don to Stalingrad on the Volga. Via this canal, Region VI now has access by water to the Azov and Black Seas.

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The vegetation of the Volga Region shows marked contrasts from north to south. In the north are dense coniferous forests of fir and spruce; the south has a cover of sparse grasses and desert herbs. Large areas in the Volga Uplands west of the Volga have a deciduous forest (mainly oak) cover, whereas the plains east of the river have a cover of steppe grasses and herbs.

The climate of the region is continental, with some desertlike areas in the south. Winters are long and cold, and summers short and hot. In the northern part of the region, periods of below-zero temperatures are common during the winter, and the cold air frequently moves southward toward the Caspian Sea. Precipitation is generally light throughout the region but is heavier in the north and west than in the south and east. In some years the summer heat and dryness of the south spread far to the north, causing droughts and crop failures. Spring and fall are short transitional seasons, with summer and winter characteristics intermingled in varying degrees.

IX. Economic Region VII.

Economic Region VII (Central) in the center of European USSR is in many ways the heart of the country. It is the historical and political center of the Great Russian people. Important railroad lines and waterways radiate in all directions from the hub at Moscow. With an output of industrial goods about one-third greater than that of the Ukraine, the region also holds the leading position in the economy of the USSR. This position is due not to the presence of raw materials or power, both of which are imported, but to the central location and the availability of skilled labor.

Although textile processing was the first large-scale industry to develop in the region, the production of machinery and chemicals now ranks first. The processing of leather, food, and timber and the production of building materials are also of importance. Agriculture plays a considerable role in the economy of the region. The north produces flax for the textile mills; the central part of the region supplies the large urban population with dairy products, vegetables, and meat; and the south specializes in the production of grains. All three areas produce potatoes for the chemical industry.

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With a total of 48.6 million people, this region is one of the most densely populated parts of the USSR. For most of the region the average rural population density ranges from 65 to 150 persons per square mile. The higher densities are found in the more fertile agricultural areas to the south. The many cities within the region support a large urban population, about a third of the total.

Ethnically, the population within Region VII is relatively uniform. Great Russians are the dominant group, amounting to nearly 100 percent of the population in the central oblasts. Only along the periphery of the region are other ethnic groups found in any considerable numbers. Small numbers of Belorussians and Ukrainians live along the western and southern boundaries. In the east, somewhat larger groups of Mari, Chuvash, and Mordvinians are found in their respective autonomous republics. Tatars, another minority group, are scattered along the eastern boundary.

The region is a part of the East European Lowland and has no distinct natural boundaries. Except for the wide belts of low hills along the western and southeastern fringes, a great lowland stretches uninterruptedly across the entire northern part of the region and extends southward between the two hilly belts. This flat lowland includes large stretches of forest and swamp in the north and considerable areas of open countryside in the south.

In the western belt of hills, elevations average 700 to 1,000 feet, but local differences in relief only occasionally exceed 200 feet. The southern two-thirds of the hill belt, called the Central Russian Upland, is a broad plateau dissected by deep river valleys and ravines. The plateau forms the divide between the Dnepr to the west and the Oka and Don systems to the east. Directly north of the Central Russian Upland is the Moscow-Smolensk Ridge, the eastern half of which is a narrow forested spur running north of Moscow. The northern part of the highland belt is known as the Valday Hills. In this area the dome-shaped hills frequently rise to elevations of over 1,000 feet. Scattered among the forested hills are many small lakes and patches of marsh.

The southeastern belt of hill land, the Pre-Volga Hills, extends along the western side of the middle Volga. The hills are flat-topped with elevations increasing gradually to over 1,000 feet along the eastern border. Numerous steep-sided valleys 60 to 400 feet

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deep have cut sharply into the flat upland. Valley bottoms are generally narrow and winding.

A network of great rivers radiates from the hilly land along the western margin of the region to all parts of European USSR. The upper courses of the rivers are so close to each other that the construction of connecting canals has been comparatively easy. A considerable proportion of the area's bulk traffic, consisting chiefly of oil and timber, is carried by these water routes. The full utilization of the waterways, however, is hampered by low water and silting during the dry summer and by ice during the 5 months of winter. For a month after the spring thaws the rivers flood large sections of their valleys.

Throughout the region there are stretches of forest interrupted by many clearings, but the amount of land in forest decreases rapidly to the south. North of the Volga, spruce and fir predominate, with pine in the dry, sandy areas. South of the Volga the forest is a mixture of coniferous and broadleaf (oak, beech, and maple) trees. Near the southern boundary, oaks predominate. Clearings in the north consist chiefly of patches of cultivated land, meadows, and swamps. In the south the open areas are more extensive, forming an almost continuous expanse of fields and pastures, most of which is in state and collective farms.

The climate of the region is characterized by long, cold winters, short, moderately warm summers, and extremely brief transitional seasons. The mean January temperature for Moscow is 14°F, but cold spells frequently bring the temperatures down to -20°F. The July average is 64°F, but temperatures often reach the 80's. Precipitation averages about 20 to 25 inches a year. It is fairly well distributed, with a slight maximum in summer. A considerable amount of the precipitation is in the form of snow. By late winter the snow cover reaches a depth of about 12 inches in the south and over 20 inches in the north.

X. Economic Region VIII.

Economic Region VIII, the Urals industrial complex, leads the USSR in the production of nonferrous metals and steel and ranks second only to the Donets Basin of Region III as a producer of iron. The region extends in a north-south direction astride the central and southern Urals. Its 294,000 square miles include the Bashkir and Udmurt

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Autonomous SSR's that flank the western slopes of the Urals and the oblasts of Sverdlovsk in the northeast, Molotov in the northwest, Chelyabinsk in the east, and Chakalov in the south.

The industrial complex of the Urals centers around the mining and processing of its rich deposits of metallic ores. Iron ore is the principal mineral resource and iron and steel manufacture the major industry, contributing more than one third of the nation's total. The largest plants are located near the ore deposits at Magnitogorsk, Nizhniy-Tagil, and Chelyabinsk. The Urals region leads all other economic regions in the USSR in the production of nonferrous metals. Side by side with iron ore are important alloys such as nickel and tungsten, as well as all of the nation's magnesium resources. Copper in combination with lead, zinc, silver, and gold is mined along both the western and eastern slopes of the mountains, and the extraction of bauxite ores is important in the northeast. The production of nonferrous metals provides the basis for metalworking industries centered in the areas of Sverdlovsk, Chelyabinsk, Kamensk-Ural'skiy, Krasnotur'insk, Solikamsk, and Berezniki. In addition, the Urals region has a large chemical industry based on the extensive potash deposits at Solikamsk and an expanding petroleum industry centered around Ishimbay and Sterlitamak.

Large deposits of mineral fuels provide power for the region, but it is lacking in coking coal. Power generated at the newly constructed hydroelectric station on the Kama River near Molotov is now being made available to industries of the Urals.

In the south and east, agriculture is of major importance, chiefly grain and livestock production. Some industrial crops such as flax, hemp, and sunflowers are grown in the west and southwest.

Railroads provide the principal means of transportation in the region. Of greatest importance are the lines that cross the Urals from west to east, linking European USSR with Siberia. The few navigable rivers of Region VIII are much less important as routes of transportation. The main waterway is the Kama River system, which connects the region with the Volga area and the central part of European USSR.

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The population density in Region VIII as a whole is low, especially in the mountainous areas. In the lowlands on either side of the mountains and in the vicinity of urban centers, population density is generally greater, in some places as high as 100 persons per square mile. The agricultural southern part of the region has a higher density than the forested area in the north. The city of Sverdlovsk (Sverdlovsk Colast), with a population of more than 600,000, is the largest city and the economic hub of the region. Among the other leading cities are Molotov (Molotov Oblast), Ufa (Bashkir ASSR), and Chelyabinsk (Chelyabinsk Oblast).

Great Russians constitute about three-fourths of the population. The remainder is largely made up of indigenous national groups of the Urals, of which the Bashkirs are the most numerous, but sizable groups of Tatars, Udmurts, and Komi-Permyaks live within the region.

The dominant terrain features of Region VIII are the central and southern Urals. Although their average elevation is only 1,500 feet, a few heights exceed 5,000 feet. To the west the mountains gradually descend to a hilly plain deeply dissected by wide river valleys and ravines; to the east they give way to a level plain studded with deep fresh-water and shallow saline lakes. In the Urals region, rivers and streams are numerous and water resources are abundant. Of the rivers the largest is the Kama, which parallels the western slopes of the mountains.

The vegetation of the Urals region is varied. Higher elevations are generally wooded. In the north, much of the lower land also has a cover of coniferous forest of spruce, fir, and pine. To the south, conifers are mixed with birch, aspen, oak, and other broadleaf species. Stands of oak are also common. In the most southerly part of the region are open steppe lands.

The climate of Region VIII is characterized by long cold winters and short moderate summers. Prolonged periods with temperatures below zero occur during the winter, and snowstorms are light but frequent. Relatively high temperatures may be experienced in summer, and heavy thunderstorms of short duration bring most of the precipitation.

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XI. Economic Region IX.

Economic Region IX, West Siberia, extending eastward from the Urals, includes great diversity of economic development, ranging from the highly industrialized Kuznetsk Basin and the fertile black-earth belt in the south to primitive tundras of the north. Most of the region is a vast plain that slopes almost imperceptibly northward toward the Kara Sea, but in the southeast are the rugged Altay Mountains. Within the last two decades the south has become one of the major industrial centers of the USSR, as a result of the exploitation of the rich mineral resources of the Kuznetsk Basin and the transportation provided by the Trans-Siberian and Turkestan-Siberian Railroads and their branch lines. The area, however, still ranks high in the production of wheat and animals.

The Kuznetsk Basin, occupying an area of 10,000 square miles, is enclosed between outliers of the Altay Mountains. Coal reserves of the basin are estimated at 450 billion tons and, for the world as a whole, rank second only to the Appalachian coalfields of the US. The area also has rich deposits of iron and manganese ore. The industrial center of the basin is Stalinsk, which has rolling mills, ferroalloy plants, and aluminum plants and also manufactures locomotives and rolling stock. Kemerovo has become an important center for the manufacture of chemicals and fertilizers as byproducts of the coke ovens.

Other industrial centers in Region IX are concentrated along the Trans-Siberian Railroad in the southern part of the area. Novosibirsk, the "Chicago of Siberia," is at the junction of the Ob' River, the Trans-Siberian and Turkestan-Siberian Railroads, and a branch line to the Kuznetsk Basin. The city produces cold-rolled steel, river vessels, machinery, and other metal goods. The surrounding agricultural lands raise wheat for its flour mills and animals for its many slaughterhouses. Timber from the extensive taiga to the north is brought to Novosibirsk via the Ob' River for processing.

Omsk, at the junction of the Irtysh River and Trans-Siberian Rail-road, is the second largest city in Western Siberia and an important industrial center. The agricultural products of the fertile black-soil region south of the railroad provide raw materials for its flour mills, slaughterhouses, and tanneries. The city is also a center for the manufacture of agricultural machinery, locomotives, and river vessels and for the assembly of automobiles.

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Tomsk, to the north, is one of the principal educational centers of Siberia. Although some of its industrial importance was lost when it was bypassed by the Trans-Siberian Railroad, the city continues to manufacture electric motors, light bulbs, and matches.

The industries of the taiga and tundra to the north are of minor importance. They include lumbering, fishing, hunting, trapping, and reindeer herding. The fir, cedar, and larch trees of the taiga provide lumber of good quality. Logs from the northern part of the taiga are sent to Salekhard for processing and export; those from the southern part are sent to cities along the Trans-Siberian Railroad. Products of these cities include lumber, cellulose, paper, and matches. The taiga is also the home of many fur-bearing animals, which are extensively hunted and trapped. The lower course of the Ob' and other rivers flowing north across the taiga and tundra supply fish, which are canned in many settlements along the rivers. In the tundra the nomadic tribes engage in trapping and reindeer herding. Furs are sent out of the region, but the skins and other products from the reindeer are used locally by the natives.

Population density in Region IX averages 12 persons per square mile, but large areas in the north are practically uninhabited and most of the population lives in the agricultural lands of the blackearth belt and in the industrial complex of the Kuznetsk Basin. Ninety-two percent of the people are Great Russians. The remainder consists of native tribes -- the Khanty, Mansi, Komi, and Nentsy in the north, and the Tatars, Oyrots, and Kazakhs in the south.

The temperatures of Region IX vary considerably from north to south because of its great latitudinal extent, but in general the region is characterized by severe winters, cold springs, short summers that are hot in the south and cool in the north, and short autumns. The greatest variation is in precipitation, which ranges from 12 inches along the Arctic coast to over 60 inches in the Altay Mountains. The steppe zone receives from 15 to 20 inches a year. Average January temperatures range from -10°F in the Arctic to 0°F in the Kuznetsk Basin. July averages from 40°F in the north to 66°F in the south.

XII. Economic Region Xa.

Economic Region Xa, Kazakhstan, which is coterminous with the Kazakh Soviet Socialist Republic of Soviet Central Asia, is an area

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of rapidly expanding mineral exploitation. Its area is slightly over a million square miles, or about one-third that of the US. From the lower Volga, Kazakhstan extends eastward for more than 1,800 miles to the Altay Range, and from the Trans-Siberian Railroad southward for over 1,000 miles to the Tyan'-Shan Range.

The region is one of the richest ore-bearing areas of the USSR. It ranks first in reserves of copper, lead, zinc, silver, chromium, nickel, and molybdenum ores, and high in its reserves of salt, antimony, tin, and bauxite. The Republic is an important source of two major fuels -- high-quality petroleum from the Ural-Emba oil-fields and coal from the Karaganda Basin. Karaganda is the third largest coal producer in the USSR and is the main source of coal for the many metallurgical industries of Kazakhstan.

The agricultural economy of Region Xa has become increasingly important. Wheat and other grains are extensively grown in the north. In the south the development of irrigation permits the production of a variety of crops -- tree fruits, grapes, rice, cotton, and sugar beets. The region is also noted for its livestock, particularly its sheep, from which wool of excellent quality is obtained.

The population of the Kazakh SSR is currently estimated at 7.2 million. The distribution, however, is very uneven, the density being greatest where water is available for irrigation and where important ores are mined. Kazakhs comprise about half of the total population and are primarily farmers and herdsmen. The Great Russians and Ukrainians, who together constitute about one-third of the total, live chiefly in the cities and are engaged in industrial or commercial activities. About 400,000 Uzbeks are found along the southern boundary, where they are engaged primarily in irrigation agriculture.

Urban growth in Region Xa has proceeded at a remarkable rate during the last three decades. Whereas there was only one city with a population of over 50,000 in 1926, there were 13 in 1948. Cities that are centers of mineral industries include Karaganda (estimated population 220,000), Gur'yev, Leninogorsk, Ust'-Kamenogorsk, and Aktyubinsk. Cities important for the processing of agricultural products include Alma-Ata (the capital of the Republic, with an estimated population of 300,000), Semipalatinsk, Petropavlovsk, Akmolinsk, Dzhambul, and Ural'sk.

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Transportation is not well developed. The rail net, although sparse, provides the principal means of transportation. Rail lines were built primarily to move mineral and agricultural raw materials to other parts of the USSR and secondarily to provide intraregional lines of communication. Three major routes cut across the region from north to south; shorter sections run east-west. The road system is antiquated and inadequate for the needs of the expanding economy. It consists primarily of a framework of improved dirt roads, supplemented by many unimproved dirt roads and trails. The roads are mainly of local importance; there are no heavily traveled interregional routes.

Region Xa is largely an arid land of low plains, sandy deserts, hills, plateaus, and mountains. Low plains fringe the Caspian Sea, extend eastward from the Aral Sea, and border the Irtysh River. Sandy deserts include the vast Kyzyl-Kum, south of the Syr-Dar'ya River, and the Muyun-Kum and Sary-Ishik-Otrau, both located near Lake Balkhash. Much of the eastern half of the region, as well as smaller areas in the west, is hill land. Plateaus are found north and west of the Aral Sea, and high mountains along the eastern and southeastern borders.

Low bushes, mainly wormwood (sagebrush), are the dominant type of vegetation over most of the region. In the north are some grasslands, and some of the higher mountain slopes are forested.

Throughout much of the region, rivers and streams terminate in landlocked seas, lakes, or local depressions. The Caspian, Aral, and Balkhash Seas are three of the largest landlocked bodies of water in the world. Only in the north, where the Irtysh and Ishim flow northward to the Ob', is there any exterior drainage. The major rivers of the region are the Syr-Dar'ya, Ural, Irtysh, Ishim, Ili, and Chu.

Most of Kazakhstan is a desert region with hot summers and cold winters. The only exceptions are the high mountains along the southern and southeastern borders, where rainfall is heavier and temperatures are cooler at all seasons.

XIII. Economic Region Xb.

Economic Region Xb, Central Asia, is a desert and mountain area whose chief contributions to Soviet economy are the products of its

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fertile irrigated agricultural lands. It includes four republics of southern Soviet Central Asia -- the Turkmen, Uzbek, Kirgiz, and Tadzhik SSR's. From the Caspian Sea the region extends eastward about 1,450 miles to Sinkiang. The total area is about 475,000 square miles, or about three times that of the state of California.

Irrigation farming plays the leading role in the economy of the region. The main crop is cotton, which is grown chiefly in the Fergana and Vakhsh Valleys and around the oases of Tashkent, Samarkand, and Bukhara. The region provides most of the cotton grown in the USSR. Other irrigated crops are rice, alfalfa, wheat, corn, and melons. Orchards producing peaches, apples, and pears are widespread, as are vineyards. Grain crops are grown on nonirrigated lower mountain slopes. Also important is the raising of livestock, including sheep, cattle, goats, and camels.

Heavy industries are concentrated in the vicinity of Tashkent, a center of metallurgy, textile, machine-construction, and food processing. Processing plants, such as ginning mills, oil presses, and canneries, are located in many parts of the region, especially in the larger cities. The region has considerable reserves of mineral resources, but their exploitation has been slow. Current exploitation includes petroleum, coal, salt, sulfur, and nonferrous metals.

The population of Region Xb is somewnat over 11.4 million of whom approximately half are Uzbeks. Tadzhiks number about 1.2 million and Kirgizi and Turkmenians about a million each. Other important groups include Great Russians, Ukrainians, and Kara-Kalpaks. Many of the native peoples live in villages of clustered homes, with communal fields nearby. The Great Russians and Ukrainians have settled chiefly in the cities, where they are engaged in industrial and commercial activities. The larger cities are Tashkent (population 600,000; largest city in Central Asia), Samarkand (150,000), Frunze (140,000), Ashkhabad (120,000), Stalinabad (110,000), Andizhan (90,000), Kokand (75,000), and Namangan (75,000).

The transportation network of the region is poorly developed according to Western standards. The railroads, which are the primary means of passenger and cargo transport, have been developed primarily to move agricultural and mineral raw materials to other parts of the USSR and secondarily as intraregional lines of communication. The main line runs east from the Caspian Sea along the Kopet-Dag foothills, across the Kara-Kum Desert, and along the

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foothills of the Tyan'-Shan, connecting all the larger cities of the region. The main railroad to European Russia leads northwest from Tashkent. Roads are few and disconnected. There are only a few stretches of paved roads, and most of these are in the Samarkand-Stalinabad area. The majority of the roads are dirt-surfaced, poorly maintained, and muddy after rains.

On the basis of terrain the region can be divided into two parts. The western half is largely desert plain, and the eastern half is mostly mountainous. The desert plain in the west extends from the Caspian Sea to the western foothills of the Tyan'-Shan. Much of the area is occupied by the Kara-Kum and Kyzyl-Kum Deserts, which are separated by the Amu-Dar'ya River. Along the southern border are irrigated cases at the foot of the Kopet-Dag Mountains. In the eastern half are the forested Tyan'-Shan and Pamir Mountain systems, with some of the highest and most heavily glaciated ranges in the world. Both systems rise to over 24,000 feet above sea level. Between the various ranges are wide mountain valleys, constituting rich agricultural and pasture lands. Particularly notable are the Fergana and Vakhsh Valleys.

All the waters of the region drain into inland basins. The two most important river systems are the Amu-Dar'ya and Syr-Dar'ya, which flow into the Aral Sea. The waters of both rivers are used extensively for irrigation. In eastern Kirgiz is the large mountain lake, Issyk-Kul', which is about a mile above sea level.

The climate of the desert plain is characterized by long and hot summers, cold winters, wide daily temperature ranges, scant precipitation, and continuously dry air. In the higher mountains to the east, the temperatures are generally lower and winters are severe; precipitation varies from 7 to 30 inches, depending upon the character of the relief and exposure of slope.

XIV. Economic Region XI.

Economic Region XI, East Siberia, is a remote region of taiga and tundra that extends from the Yenisey River to the Far Eastern Economic Region. On the north is the Arctic Ocean, and on the south are the mountains of the Mongolian People's Republic. Although approximately the size of the US, the region has a total population smaller than that of New York City. The only industrial development of note is in the south, in areas accessible to the Trans-Siberian Railroad.

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The contributions of Region XI to the national economy are lumber, gold, and furs. Most of its coal and the products of its manufacturing industries are for local consumption. The coniferous forests of the taiga of East Siberia supply most of the lumber for exporting -- primarily larch, with some pine from the southern half of the region. Most of the logs are floated down the Yenisey and Lena Rivers to Igarka and Tiksi to be milled and exported, but logs from the southern part of the region are processed at many cities along the Trans-Siberian Railroad. Lumber, paper, cellulose, furniture, and matches are the principal products. Gold is mined in many places in the southern and central parts of Eastern Siberia. The region supplies nearly one-third of the total Soviet gold production. Furs are procured chiefly in the taiga of the Evenki National Okrug and the Yakutsk ASSR. The principal types are sable, ermine, marten, mink, and squirrel.

Coal is the chief mineral mined for local use in Region XI. Although extensive deposits are found within the region, they are little developed because of their isolation. The largest deposits are in the Lena River valley and in the highland east of the Yenisey River. Smaller deposits in the south are mined to supply fuel for the industries in Krasnoyarsk, Irkutsk, and Chita.

The largest cities in Region XI have developed where the Trans-Siberian Railroad crosses the northward-flowing rivers. Krasnoyarsk, on the Yenisey, produces locomotives, gold-mining and agricultural machinery, paper, cellulose, lumber, and flour. The industries of Irkutsk produce machinery, plywood, meat products, and flour. Power for these industries is obtained from coal mined at the neighboring Cheremkovo Basin. The Angara River is being harnessed to provide Irkutsk with hydroelectric power. Ulan-Ude, the capital of Buryat-Mongol ASSR, produces locomotives and railroad cars, meat products, glass, and flour. Yakutsk, the only major city not on the Trans-Siberian Railroad, processes most of the farm products grown in the Yakutsk ASSR.

Agriculture is concentrated in the scattered steppe areas that appear as islands in the southern taiga. Of these, the largest is the Minusinsk Basin, where the fertile black soil produces spring wheat, sugar beets, and flax. Elsewhere in East Siberia the mountainous relief, severe climate, light rainfall, and frozen subsoil limit the expansion of agriculture; but small amounts of barley and spring rye are grown as far north as the Arctic Circle.

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The principal routes of transportation for most of Region XI are the rivers that flow northward and empty into the Arctic Ocean. The Yenisey and Iena are the longest, but both are navigable only during the summer. The rivers connect with the Northern Sea Route at the Arctic ports of Dikson and Tiksi.

The Trans-Siberian Railroad serves the southern part of Region XI and is responsible for the establishment and growth of cities at river crossings. The Baykal-Amur-Magistral' (BAM) branches off the Trans-Siberian to the northeast at Tayshet. At present, the line is believed to extend only from Tayshet to the Bodaybo gold fields, but the planned eastern terminus is Komsomol'sk on the Amur River.

The population of Region XI is sparse, averaging only 3 persons per square mile, but in much of northern Yakutsk ASSR the density drops to 1 person for every 30 square miles. The heaviest concentration of population, 10 per square mile, is along the TransSiberian Railroad. Great Russians, who are the most numerous, live in the areas of higher economic development. The remainder of the population consists of native groups -- the Evenki in the north, Tuvinians and Khakassi in the southwest, and the Buryat-Mongols in the southeast.

East Siberia consists of a large plateau bordered by mountains on the south and east. This Central Siberian Plateau is drained by numerous rivers that flow through deep, steep-sided valleys. All of them are tributaries of the broad, majestic Yenisey and Lena Rivers, which border the plateau on the west and east. In the south, mountains form broad arcs along the edge of the plateau and rise to elevations of 11,000 feet. The Sayan Mountains have rounded, dome-like summits devoid of vegetation. The region surrounding Lake Baykal is composed of plateaus and mountain ridges of various elevations, separated by wide, deep river valleys. On the east the Central Siberian Plateau is bordered by the jagged, alpine peaks of the Verkhoyansk Range. These mountains give way in the extreme northeast to the lowland of the Indigirka and Kolyma Rivers.

Permafrost underlies all of East Siberia except for an area between the upper Yenisey and Angara Rivers. The thickness of this permanently frozen subsoil varies from 3 feet in the south to 2,000 feet at Nordvik.

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Taiga vegetation is predominant in East Siberia and extends from the southern mountains to 70° latitude. Scattered throughout the southern taiga are small islands of steppe vegetation, which are extensions of the vast Mongolian steppes. The Minusinsk Basin is the largest of the steppe areas. Beyond the northern limit of the taiga, the vegetation consists of stunted, bushy tundra plants, which continue northward to the Arctic littoral.

Because of its great latitudinal extent, East Siberia has an extremely varied climate. The region in general has humid, cool summers and long, cold winters. Precipitation ranges from 5 to 7 inches along the Arctic coast to over 40 inches in the Sayan Mountains. In summer, rain falls in short, heavy thunderstorms. Little snow falls in winter and skies are clear. The interior of Eastern Siberia has extremely cold winters -- Verkhoyansk averages -58°F during January and has recorded a low of -94°F. The maximum temperature recorded at Verkhoyansk is 94°F -- giving it a temperature range of nearly 200°. Farther north, on approaching the Arctic coast, temperatures become somewhat higher and average -30°F for January.

XV. Economic Region XII.

Economic Region XII, the Soviet Far East, stretches from Korea to Mys Dezhneva, only 50 miles from the North American continent. This vast region covers approximately 1,207,000 square miles, an area equal to one-half that of European USSR. It includes the Primorskiy (Maritime) and Khabarovskiy Krays, and the Amur, Magadan, and Sakhalin Oblasts.

The economic importance of the Far East lies in its range of natural resources. Mining, fishing, lumbering, and fur trapping are the basic activities of the region. The Magadan-Kolyma area in the north is one of the most important gold-mining districts of the USSR. Gold is also mined in the Zeya, Selemdzha, and Bureya River valleys in the south. Coal is mined at Artem and Suchan in the vicinity of Vladivostok, in the Bureya Basin, and on Sakhalin Island. Sakhalin is also a producer of petroleum. The Bureya coking coal supplies the metallurgical industry at Komsomol'sk-na-Amure. A variety of other mineral resources are also mined to a lesser extent throughout the region. The region ranks as the leading fish producer of the USSR. Fishing grounds include the Sea of Okhotsk, the waters along the Kamchatka Peninsula, the lower Amur River, and the Sea of Japan. Along the coast are a number of fishing and canning centers. The

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dense forests of the region provide a rich source of lumber and a variety of fur-bearing animals. Agriculture is limited chiefly to the Amur and Ussuri River valleys. The principal cultivated areas are the Zeya-Bureya Plain, the middle Amur Valley, and the Khanka-Ussuri Lowland. Spring grain, rice, and soy beans are among the crops grown in these areas.

The population of Region XII, numbering approximately 5.1 million, is concentrated chiefly in the south along the Amur River and its tributaries and along the Trans-Siberian Railroad. Great Russians and Ukrainians, who make up the bulk of the farmers and industrial workers, constitute approximately 80 percent of the total population. The Paleoasiatic and Tungus-Manchurian tribes, the original inhabitants of the region, now comprise about 10 percent of the population. Chinese and Koreans, constituting less than 10 percent, live mostly in the southern areas. Yakuts and Jews also form sizable minorities.

The most important cities of the Far East are located along major transportation arteries and serve chiefly as administrative, industrial, and transportation centers. The cities of Vladivostok and Khabarovsk, each with over 300,000 population, are the largest urban centers of the region. Vladivostok is the chief Soviet port on the Pacific and the terminus of the Trans-Siberian Railroad. The port of Vladivostok and the adjacent port of Nakhodka are kept open yearround with the aid of ice-breakers. Industries of Vladivostok are based primarily upon maritime commerce, fishing, shipbuilding, sawmilling, and the manufacture of machinery. Khabarovsk, located on the Amur River at its junction with the Trans-Siberian Railroad, is the most important transportation center of the region. Major industries of Khabarovsk include oil refining, shipbuilding, aircraft and auto assembly, the manufacture of machinery, and food processing. Other industrial and transportation centers of the region include Voroshilov, Komsomol'sk-na-Amure, Blagoveshchensk, Nikolayevsk-na-Amure, Sovetskaya Gavan', and Oka and Yuzhno-Sakhalinsk on Sakhalin Island.

The Trans-Siberian Railroad, which links the Far East with other regions of the USSR, and the Amur River are the chief transportation routes of the region. A second railroad farther north, the Baykal-Amur-Magistral' (BAM), is reportedly under construction. The road network of the region is poorly developed except in the Amur River basin. A few improved roads extend inland from major settlements along the coast. During the ice-free navigation season, coast-

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wise shipping is of some importance. Air routes linking remote areas of the region are becoming increasingly important.

A series of extensive rugged mountains lying roughly parallel to the coast forms the principal relief feature of the region. The major mountain chains include the Sikhote-Alin', Stanovoy, Dzhugdzhur, and Kolyma, and two parallel ranges on Kamchatka Peninsula. Many permanently snowcapped peaks protrude above the surrounding mountain ranges. The Amur in the south, and the Kolyma, Anadyr', and Kamchatka in the north are the major rivers of the region. Most of the mountain slopes and intervening valleys are covered by a dense forest growth. In the south the Amur Valley and Maritime Kray have a cover of mixed deciduous and coniferous forest; in the north, coniferous trees prevail. Grasslands are found in the river valleys, at higher altitudes along the mountain slopes, and on plateaus. Most of the Kamchatka Peninsula is forested, but tundra covers the entire Chukotsk-Anadyr' area to the north.

The climate of the region is largely monsoonal, except in the north, where Arctic conditions prevail. The maritime effect of the Sea of Okhotsk and the Pacific Ocean, and the mountain ranges that parallel the east coast have an ameliorating effect on the climate of the region. Summers are usually hot and humid in the south but become cooler and drier toward the north. Most of the precipitation falls during the summer. Precipitation is heaviest on the Kurile Islands, along the east coast of the Kamchatka Peninsula, and in the Amur Valley and Maritime Kray. Winters are severe, dry, and clear. In winter, cold air masses from Siberia flow across Region XII, but they are modified somewhat by the Sea of Okhotsk and the Pacific Ocean.



Population and Area of the Economic Regions of the USSR 1954

Economic Region	Population (Millions)	Area (Thousand Square Miles)	Population (Density per Square Mile)
Ia Ib IIa IIb III IV VI VII VIII IX Xa Xb XII	8.1 3.6 7.2 9.3 46.8 9.9 8.4 11.1 48.6 14.4 11.7 7.2 11.4 7.2 5.1	188 443 74 80 246 138 74 187 380 294 936 1,063 475 2,781 1,207	43 8 97 116 190 72 113 59 128 49 12 6 24
Total USSR	210.0	8,566	24.5

